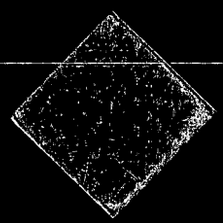
WasteTron, Inc.



WasteTron, Inc.
Route 1, Box 33-B Poca, WV 25159

FINAL
Quality Control Plan

Preperation of Remediation Work Plans and
Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

October 2001
WT 4807

FINAL
Quality Control Plan

Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

Prepared for:

Department of the Army
Huntington District, Corps of Engineers
Huntington, WV

Prepared by:

WasteTron Inc.
Rt. 2 Box 33-B
Poca, WV 25159
(304) 755-8448
(304) 755-1099 FAX

October 2001

Quality Control Plan

Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
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TABLE OF CONTENTS

Definitions and Acronyms

CPR	Cardiopulmonary Resuscitation
EPA	United States Environmental Protection Agency
HTRW	Hazardous, Toxic, and Radioactive Waste
IDW	Investigation Derived Waste
IQCT	Independent Quality Control Team
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety & Health Administration
PID	Photoionization Detector
POC	Point of Contact – technical point of contact for the U.S. Army Corps of Engineers
PPE	Personal Protective Equipment
QA	Quality Assurance
QC	Quality Control
QA & QC	Quality Assurance/Quality Control
SOW	Scope of Work
SSHO	Site Safety and Health Officer
SSHP	Site-Specific Safety and Health Plan
USACE	United States Army Corps of Engineers

FINAL
Quality Control Plan

Preparation of Remediation Work Plans and Construction of Cap
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Contract No. DACW69-00-D-0021
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1.0 Purpose

This WasteTron Quality Control Plan (QCP) is based on the professional competence of the employees performing the project tasks and consists of checklists and documentation to provide a final report of high standards. WasteTron has high standards for its employees and subcontractors involved in all projects. Project tasks are assigned in accordance with clearly demonstrated capabilities. Quality Assurance/Quality Control (QA/QC) is implemented within the project framework by a distinct QA/QC organization functioning under established guidelines. This QCP ensures the development of a high quality technical product that requires little revision prior to the Final Quality Assurance Review.

2.0 Scope of QA/QC Services

The general QA/QC program is designed to ensure quality performance, traceable results, and confidence in the documents prepared for all projects completed by the firm. This project will adhere to the following guidelines established by the Department of the Army, Corps of Engineers:

EM-200-1-3, "Requirements for the Preparation of Sampling and Analysis Plans", U.S. Army Corps of Engineers, February 2001

EM-200-1-6,"Chemical Quality Assurance for Hazardous, Toxic and Radioactive Waste Projects (HTRW)," U.S. Army Corps of Engineers, October 1997

ER-1110-1-263, "Chemical Data Quality Management for Hazardous Waste Remedial Activities", U.S. Army Corps of Engineers, April 1998

CELRHR 5-2-7, "Quality Management Plan, U.S. Army Corps of Engineers, May, 1999

EM 385-1-92, "Safety and Health Document Requirements," U.S. Army Corps of Engineers, September 2000

EM 200-1-2, "Technical Project Planning Process", U.S. Army Corps of Engineers, August 1998.

EM 200-1-4, "Risk Assessment Handbook", U.S. Army Corps of Engineers, January 1999

All field procedures and reporting requirements as identified in the Scope of Work are monitored and reviewed as shown in the attached checklists. The final document is subject to internal peer review and senior personnel review prior to completion. All project deliverables are subject to review by the United States Army Corps of Engineers (USACE).

2.1 Training

All field personnel performing work on this project have received forty- (40) hour Hazwoper training. All field personnel meet the training requirements as cited in 29 Code of Federal Regulations (CFR) 1910.120. At least two personnel on-site have received first aid and cardiopulmonary resuscitation (CPR) training. Appendix B of the Site Specific Safety and Health Plan (SSHP) contains copies of all training certifications and dates of refresher training for employees who may work on this project.

2.2 Project Planning

Project planning encompasses the preparation of a series of procedures that specify the manner in which project activities will be conducted. The purpose of these procedures is to provide step-by-step control on how and when tasks will be completed. In general, the following procedures are followed for USACE projects:

- The project is assigned to a Project Manager experienced in the type of work to be completed.
- The Project Manager reviews the Scope of Work (SOW) to determine the extent of work required and to determine the best personnel to be assigned to the project.
- The Project Manager discusses his personnel requirements with an Administrator who authorizes the use of those personnel.
- The Project Manager then notifies the field coordinator that a project is in the planning status and informs the field coordinator what personnel he would like to use for the project.

- An initial project team will be formed consisting of the Project Manager, an administrative assistant, and a technical support person.
- The project team will discuss the project objectives, data requirements, and identify the possible regulatory requirements associated with all aspects of the project.
- The project team will gather and evaluate site information. This would include a site reconnaissance and review of any available background data including previous site assessments.
- After plan preparation, an independent Internal Quality Control Team (IQCT) will review the plans and make comments, which will be resolved or incorporated into the plans.
- Draft Plans will be submitted to the USACE.
- During the IQCT and USACE reviews, the Project Manager tentatively schedules equipment, personnel for the project, and subcontractors.
- Upon receipt of comments from the USACE, the technical support person will review comments with the Project Manager.
- Comments from the USACE will be incorporated in the plans or resolved prior to beginning work.
- The Project Manager notifies all appropriate parties of concern (utilities, property owners, USACE, and so forth) of the intended project schedule.
- The Project Manager has the utilities marked prior to performing any intrusive activities.
- The Project Manager confirms the scheduling of equipment and personnel for the project and then performs the project.
- The Project Manager supplies copies of all field documentation and gives a narrative of field activities to the technical support person who will prepare the report.
- After the report is prepared, an independent Internal Quality Control Team (IQCT) will review the report and make comments, which will be resolved or incorporated into the report.
- A Draft Report will be submitted to the USACE.
- Upon receipt of comments from the USACE, the comments will be resolved or incorporated into the report and the final report will be issued.

2.3 Technical Reviews

This includes issuance of all project-related documents controlled by a technical review system. Reports will be reviewed by qualified, independent reviewers to ensure proper documentation. All project submittals will independently be reviewed by at least two WasteTron personnel. Reviews will be performed by personnel who are knowledgeable concerning regulatory requirements and who are experienced in performing field related procedures associated with this project. All comments resulting from the technical reviews are resolved and/or incorporated in the project submittals.

A Senior Project Manager will review all project submittals. The Senior Project Manager will perform a review of all plans for precision, accuracy, representativeness, comparability, completeness, and verification that the work has been conducted in accordance with the SOW, policies, and guidelines. A Peer Review of the plans and reports is performed to determine their adequacy, completeness, and verification that the work was conducted in accordance with the scope of work, policies and guidelines.

2.4 Document Control

Project technical files will be maintained on-site in the office trailer and administrative files will be maintained at WasteTron's office in Poca, West Virginia.

2.5 Quality Evaluation/Audit Surveillance

Qualified personnel who are independent of project activities will perform quality evaluations at predetermined intervals. The purpose of evaluations and audits is to ensure compliance with technical procedures and to document quality control. The Senior Project Manager performing technical reviews will perform quality evaluations of technical procedures and paperwork documentation during the course of the project. The quality evaluations may take the form of site visits to evaluate personnel's field procedures and/or review of field documents. Additionally, an administrative review is performed to ensure that project submittals are performed in a timely manner.

The Quality Control Inspector will be responsible for overseeing the work performed by WasteTron personnel and WasteTron's subcontractors. The Quality Control Inspector will be responsible for inspecting materials brought to the site to ensure that they meet contract specifications. Materials will not be accepted for delivery at the site if they do not meet contract specifications. Written records will be kept of all materials brought on-site, their condition at time of delivery, storage methods, and condition of the material at time of use. The work performed by subcontractors will be inspected to ensure that it meets contract requirements. Work not meeting contract specifications will be immediately stopped and remedied.

2.6 Project Management

The On-Site Supervisor will oversee the project and ensure that all details are followed and that project activities are on track. Any project problems will be directed to the WasteTron Project Manager and the USACE POC for quick resolution.

2.7 Site Security

The recent flooding and subsequent restoration of Arbuckle Creek has destroyed the fencing that was previously in place; therefore, no gate or fencing exists on either end of the site. As part of

this project, fencing will be installed. Rocks located at the site will be moved and arranged such as to limit vehicular access to the area. The On-Site Supervisor will be responsible for ensuring all equipment, storage containers, and office trailers will be locked prior to leaving the site each day. Caution tape or fence shall be constructed around the cap area to restrict access to this area.

2.8 Field Quality Assurance (QA)

Field quality control is as vital to a project as is quality control within the laboratory. Proper execution of each project task is needed in order to yield consistent, reliable information that is representative of the media and conditions being measured. The overall quality assurance objective is to ensure that data of known quality is generated which will be useful in meeting the intended project objectives. The On-Site Supervisor and the Quality Control Inspector will be responsible for seeing that field personnel adhere to the QCP. Quality Control Field Oversight Checklists to be used for field activities are provided in Appendix B. The Quality Control Inspector, Rodney Roberts, will complete the field oversight checklists.

2.9 Daily Quality Control Reports (QCR)

In addition to entering information into a bound logbook, the Quality Control Inspector is responsible for completing the USACE's Quality Control Reports (QCR). The QCR shall be prepared daily, dated, and signed by the Quality Control Inspector. The following information will be recorded on the QCR:

- Weather information
- Field instrument measurements
- Equipment calibrations
- Departures from the approved plans (any deviation that may affect data quality objectives must be conveyed to the USACE immediately).
- Record any problems encountered and any information pertaining the to job.
- Instructions from government personnel
- Safety equipment used
- On-site personnel shall be listed by work category and number of hours worked.
- Hours of equipment operation and type of equipment operated shall be noted on the QCR.
- Detailed description of work accomplished for the work day.
- Any visitors to the site shall be listed on the QCR.
- Attach field over site checklist, daily safety meeting form, and personnel log in sheet to the QCR.
- Any information obtained on materials testing, certifications of materials, equipment safety inspections, Subcontractor's QC reports shall be attached to the QCR.
- Information concerning materials received (how much, type, and usage) must be recorded on the QCR or attached to it.

2.10 Corrective Action

Corrective action procedures may be required in the event a discrepancy is discovered in the field or during an audit. The On-Site Supervisor and/or the Quality Control Inspector will address discrepancies relating to field work and work materials. Any deviations from approved plans shall be fully documented. WasteTron personnel will seek approval from the USACE Oversite person if any deviations are to be made. WasteTron will not allow any deviations with out the approval of the USACE Oversite person. No deviations from the approved plans that compromises construction activities or personnel safety shall be allowed.

3.0 General Project Information

3.1 Project Type

Preparation of Remediation Work Plans and Construction of Cap

3.2 Project Location

Minden, WV

3.3 Customer/Sponsor

U.S. Army Corps of Engineers (USACE), Huntington District (Contract No. DACW69-00-D-0021, Work Order Number 0001)

3.4 Project Description

3.4.1 Site Location

The Shaffer Equipment Company (SEC) Site is located off Old Minden Road along Arbuckle Creek in Minden, Fayette County, West Virginia. The site is in a valley that drains to the northeast into the New River Gorge, a National Wild and Scenic River Area. The site is on the border of the Thurmond and Oak Hill United States Geological Survey topographical maps at 38 degrees, 58 minutes, 35 seconds North latitude and 81 degrees, 7minutes, 38 seconds West longitude.

3.4.2 Site Description

The SEC site occupies a long and relatively narrow area of land, approximately 5 acres in size. The site contains a concrete slab that was left after demolition of the Shaffer Electric Building. The concrete slab will not be removed, the corners of the slab will be broken off prior to the installation of the cap. The site is approximately 1600 feet long and has a maximum width of

approximately 250 feet. The site lies in a valley surrounded by hills. The site is relatively flat, sloping slightly to the north towards Arbuckle Creek, which flows northeast. The site is bounded on the east by a roadway, which separates it from several residences. The site is bounded on the south by hills containing an abandoned mine shaft (Minden Mine #3). On the west, there is a fence near the concrete slab. The site extends westward to a roadway separating the site from several residences. A fence and a gate are present along the eastern border of the site. There are several residences along the east side of the site beyond the fence. The northern portion of the site is bounded by Arbuckle Creek. Directly adjacent to Arbuckle Creek there exists an old abandoned building (possibly an old bath house) that is currently scheduled for demolition by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands (AML) in 2002. The two fences present on the site did restrict vehicular access, but did not restrict access by humans or animals. The fences were severely damaged by recent flooding.

Approximately 175 feet west of the concrete slab is a drainage ditch that runs across the site, discharging into Arbuckle Creek. There is another ditch, which starts in an area southwest of the concrete slab and flows along the edge of the hill to the south of the site. This ditch discharges into Arbuckle Creek about 1,000 feet southeast of the site. There is a berm along the southern bank of Arbuckle Creek, starting from the western boundary of the site and ending at a location north of the concrete slab. This berm was reconstructed after contaminated soil removal activities were performed at the site in 1987. There is also another berm along Arbuckle Creek that starts east of an old abandoned bridge and ends at the eastern fence line. These berms serve as flood control measures for the site.

3.4.3 Background

From 1970 to 1984, SEC built electrical substations for the local coal mining industry. The substations incorporated various types of transformers, capacitors, switches, and related voltage regulation and distribution devices. Oil containing polychlorinated biphenyls (PCBs) was used in the electrical transformers and other equipment. SEC stored non-essential, damaged, or outdated transformers and capacitors on-site. Leaks from the equipment, possible spills, and dumping practices appear to be responsible for the PCB contamination in the soil at the site.

The West Virginia Department of Natural Resources (WVDNR) inspected the site in September 1984 and found several hundred transformers and capacitors on-site. Analysis of a composite surface soil sample and a grab soil/sediment sample from a site drainage ditch to Arbuckle Creek indicated elevated levels of PCBs on-site.

At the request of the WVDNR, the United Sates Environmental Protection Agency (USEPA) investigated the site and subsequently performed two contaminated soil removal actions. The first removal action was performed from December 1984 through December 1987, and the second one was performed from November 1990 through January 1991. Data from past studies by USEPA shows that some fairly high levels of PCBs remain in localized hot spots. An area of approximately 47,800 square feet surrounding the concrete slab has surface PCB contamination

as high as 1,200 mg/kg and an additional area of approximately 32,000 square feet around the above area has surface PCB contamination up to 50 mg/kg.

The primary concern is characterized as surface and sub-surface soil/dust contamination in and around the concrete slab (previous site of the Shaffer Equipment Company Building). PCBs are hazardous substance as defined in Section 101 (14) CERCLA amended, 42 U.S.C. 9601 (14), because they are a listed substance in 40 CFR 302.4. The routes of exposures are through direct contact, inhalation, and/or ingestion of contaminated soils/dust. The history of periodic flooding, evidence of manmade disturbances to the initial mitigating remedy (soil cover) from EPA's previous removal, vandalism to the fences and gates, areas of erosion of the surface soils and the overall deterioration of the property are evidence of the potential threat of offsite migration of the PCB contaminated soils/dust.

Access to Shaffer Equipment Company site will be obtained from Minden Road to the downstream entrance. The recent flooding and subsequent restoration of Arbuckle Creek has destroyed the fencing that was previously in place; therefore, no gate or fencing exists on either end of the site.

3.4.4 Project Objectives

The recommended plan for the remediation of the PCB-contaminated site consists of construction of an impervious cap/barrier over the contaminated soil, placement of a sheet pile cutoff wall along portions of Arbuckle Creek to eliminate migration to and from the site, and surface diversion and drainage plan. Based upon the "pit investigation" performed at the site and the USACE's discussion with the property owner, it is the property owner's intent to let the site "go back to nature".

The type work to be performed for this project includes, but is not limited to the following:

- Clearing and grubbing activities shall be performed at the site.
- Placement of a sheet pile cutoff wall along portions of Arbuckle Creek will be installed to eliminate migration of contaminants.
- Grading and excavation work will be performed to bring the site to the appropriate grade prior to the placement of the geotextile liner.
- Perform placement and compaction of clay soil barrier and placement of the geotextile liner.
- Existing berms along Arbuckle Creek will be done away with when the sheet piling is installed.
- The SOW requires that all of the wells on-site (except the four wells designated by US EPA) shall be abandoned in accordance with all local, state, and federal regulations. Personnel from WasteTron and Triad Engineering performed a site visit on September 26, 2001 to inspect the four wells designated by US EPA to remain. The wells were filled with silt from the recent flooding that occurred at the site. New wells will need to be installed prior to the installation of the landfill cap.

- When the new monitoring wells are installed they shall be installed such that the height and cap of each of the wells will be flush-mounted with the top of the installed cap. After installation the wells shall be checked by WasteTron or Triad Engineering personnel to ensure that groundwater can be obtained from the wells in sufficient quantity for future sampling requirements. Well installation shall be performed in accordance with state, and federal regulations. Also, well installation shall adhere to the requirements of USACE EM 1110-1-4000 (Monitoring Well Design, Installation, and Documentation at Hazardous, Toxic, and Radioactive Waste Sites).
- Cut stone remaining on-site from the previous demolition of buildings from the site will be placed in such a manner as to prevent access to the cap area by all terrain vehicles. The cut stone is located downstream of the eastern section of the cap. (Refer to Sheet 2 of 18 of the Final Work Plan at centerline of riprap ditch, stations 4 +80 through 5+50).
- Perform site grading, placing of topsoil, and seeding/mulching of disturbed areas.
- An Operations and Maintenance Plan shall be prepared when construction activities are near completion.
- Upon completion of the site features, WasteTron shall submit As-Built Drawings to document what was actually constructed at the site (plan view of cap, x-sections, surveyed location and depth of sheet piling, drainage work, subsurface work, and so forth).
- A Phase I HTRW Assessment shall be performed on the borrow site once it has been selected. The assessment shall be done in accordance with current ASTM E 1527 standards. Optionally, a Phase II HTRW Assessment may be performed in lieu of the Phase I Assessment, if granted prior approval by the USACE POC.
- WasteTron shall prepare a Quality Control Plan, a Site Specific Safety and Health Plan, and a Plan of Operations for this project. These plans as well as the Design Work Plan shall be maintained on-site and available for review at any time.

3.4.5 Project Organization

The collection of quality data and the completion of any given project are strongly affected by the project organization. A project that is properly organized with personnel responsibilities well-delineated results in a successful project conclusion. A listing of functional areas and qualified personnel are given for this project.

A. Government Technical Point of Contact (POC) -- This is the technical point of contact representing the USACE who will serve as a liaison between the USACE and the contractor. The POC designated by the USACE for this project is Ms. Lisa Humphreys. Mr. Larry Drown will serve as the USACE Field Oversite person for this project.

USACE POC		Phone Number
Lisa Humphreys		(304) 529-5953
Larry Drown	(Cellular Phone)	(304) 634-6662

B. **National Parks Service (NPS) POC** -- This is the point of contact representing the National Parks Service.

NPS POC		Phone Number
Andy Steel	(extension 15)	(304) 763-3145

C. **United States Environmental Protection Agency (USEPA), Region III POC** -- This is the point of contact representing the USEPA for Region III.

USEPA	Phone Number
Steve Jarvela	(215) 814-3259

D. **West Virginia Division of Environmental Protection (WVDEP), Office of Abandoned Mine Lands (AML) POC --** These are the point of contacts representing the Office of Abandoned Mine Lands.

AML POC	Phone Number
Richard Darnell (Nitro, WV office)	(304) 759-0521
Phil Brannon (Oak Hill, WV office)	(304) 465-1911
Mel Hartley (Oak Hill, WV office)	(304) 465-1911

E. **Contractor's Project Manager** -- reviews and approves field operations procedures and assures that these procedures meet quality control (QC) objectives, and provides technical insight. The Project Manager has overall responsibility for this project.

WasteTron Inc. Project Manager		Phone Number
Mike Evans	Office	(304) 755-8448
	Cellular Phone	(304) 549-3321

F. **Contractor's On-Site Supervisor** --this person is responsible for overseeing the day to day activities at the site.

WasteTron Inc. Project Manager		Phone Number
Gary Cooper	Office	(304) 755-8448
	Cellular Phone	(304) 421-4644

G. **Field Personnel** – One or more of the following personnel will serve as an environmental technician to assist in completion of this project. One of the following may operate heavy equipment for this project. Rodney Roberts will serve as the Quality Control Inspector for this project. A listing is given of the personnel dedicated to perform work on this project; however, if one of the dedicated personnel becomes ill or injured then WasteTron may utilize the services of one or more of the personnel listed as "substitute personnel".

WasteTron Field Personnel	Phone Number
Field personnel	
(b) (4)	(304) 755-8448
Substitute personnel	
(b) (4)	

H. **Ahern and Associates** --Personnel from Ahern will perform the install the sheet piling along Arbuckle Creek.

Ahern and Associates Contact	Phone Number
(b) (4)	(304) 766-8062

I. **Mountain State Company**--This company will prepare the as-built drawings.

Mountain State Company Contact	Phone Number
(b) (4)	(304) 949-4762

J. **Massie Reclamation, Inc** -- Personnel from Massie Reclamation will perform seeding and mulching activities at the site.

Massie Reclamation Inc. Contact	Phone Number
(b) (4)	(304) 877-6460

K. **Environmental Contracting, Inc.** – Personnel from this company will install the HPDE liner and the geo-composite layers of the capping system.

Environmental Contracting, Inc.	Phone Number
(b) (4) [redacted]	(800) 999-3787

L. **Triad Engineering** – Personnel from this company will perform well closure activities at the site.

Triad Engineering	Phone Number
(b) (4) [redacted]	(304) 755-0721

M. **Site Specific Safety and Health Officer (SSHO)** – This person will be responsible for site safety concerns. WasteTron will utilize the services of Pinnacle Environmental to perform the site safety for this project.

Pinnacle Environmental	Phone Number
(b) (4) [redacted]	(304) 757-5204

N. **Potesta and Associates** –Personnel from this company will perform soil compaction testing.

Potesta and Associates	Phone Number
(b) (4) [redacted]	(304) 342-1400

4.0 Internal Quality Control

The project will be conducted under the guidance of the Project Manager. The Project Manager will be responsible for ensuring a quality product in the functional area through internal checks and reviews. An internal quality control team will independently review the work plans and reports. This work will be conducted with full communication between team members. Review of problems shall be in writing. Comments from the internal quality control team will be resolved or incorporated in the work plans and reports generated for this project. Only quality products will be released from the review team after signoffs.

4.1 Internal Quality Control Team (IQCT)

A Senior Project Manager will review all project submittals. The Senior Project Manager will perform a review of all plans for precision, accuracy, representativeness, comparability, completeness, and verification that the work has been conducted in accordance with the SOW,

policies, and guidelines. All comments resulting from the various reviews will be resolved and/or incorporated in the project submittals. The Senior Project Manager reviewing this project is:

Senior Review	Phone Number
(b) (4) [redacted]	(304) 755-8448

A Peer Review of the plans will be performed to determine their adequacy, completeness, and verification that the work was conducted in accordance with the scope of work, policies and guidelines.

Peer Review	Phone Number
(b) (4) [redacted]	740-574-6144

Appendix A contains resumes for members of IQCT teams.

5.0 Project Schedule

The proposed project schedule is as follows:

Submission of ten copies of the Draft Site-Specific Safety and Health Plan (SSHP), the Draft Quality Control Plan (QCP), and Plan of Operations	15 days after notice to proceed on construction activities
Submission of Final SSHP, QCP, and Plan of Operations	20 days after notice to proceed
Submission of 15 copies of the Draft Operations and Maintenance Plan	90 days after contract award date
Submission of 15 copies of the Final Operations and Maintenance Plan	100 days after contract award date
Submission of Draft As-Builts	100 days after contract award date
Submission of Final As-Builts	120 days after contract award date
Mobilization	Week of October 15
Site Preparation	Weeks of October 15 –Oct. 22

Clearing/Grubbing	Weeks of October 15 –Oct. 22
Construction Layout	Weeks of October 15 –Oct. 22
Unclassified Excavation	Week of Oct. 22
Excavation Borrow Activities	Week of Oct. 29
Install monitoring wells	Week of Oct. 29
Abandon Monitoring wells	Week of Oct. 29
Clay Layer	Weeks of Oct. 29- Nov. 5
40 mil Liner	Weeks of Nov. 12-Nov 19
Geo-net	Weeks of Nov. 12-Nov 19
Sheet Piling	Weeks of Oct. 22-Nov. 12
Construction of Ditches	Weeks of Nov. 19-Nov. 26
Construction of bunkers	Week of Nov. 26
Temporary seeding	Week of Dec. 3
Permanent seeding	Spring 2002

APPENDIX A Resumes of IQCT Team

(b) (4) [redacted]
178 Dogwood Circle
Hurricane, WV 25526
(304) 755-8448

EDUCATION:

Ohio Northern University College of Law --Ada, Ohio

J.D. Candidate May, 1993
Coordinating Editor, Law Review
Law Review Symposium Committee
Moot Court Board of Advocates
Florida Bar Association National Tax Competition
Class Rank Top 15 %
Admitted to the West Virginia Bar, 1993

West Virginia State College-- Institute, WV
B. S. Chemistry, 1988

Academic Appeals Committee
Student Court Justice
American Chemical Society

EXPERIENCE:

Jan. 1995-Present

WasteTron, Inc./TEST Inc.
Rt.1, Box 33-B, Poca, West Virginia
President

Provides leadership for the company as its chief executive officer. Monitors environmental regulations and tracks trends in the environmental business to provide our project managers with current trends. Supervised every facet of the business. Reviewed all proposals and bids. Solicited projects on behalf of WasteTron. Ensured the timely execution of all projects.

Feb. 1994-Jan.1995

WasteTron, Inc.
Charleston, West Virginia
Vice-President

Worked in all facets of the business. Supervised all operations of the company. Utilized technical background to provide efficient

execution of all waste remediation and management projects. Also, solicited work on behalf of WasteTron, Inc. Successfully bid and currently executing a $ 1,400,000.00 project with the United States Army. In all projects that I was involved with, from the initial sale of the service, I executed the project till the final report was satisfactory to the client. In addition, supervised projects that other project managers solicited. Handled all administrative duties in the business - payroll, expense accounts, accounts payable, accounts receivable, insurances, bonding, and tax matters.

May, 1993-Jan 1994

Spilman, Thomas & Battle
Charleston, West Virginia
Associate

Worked primarily in toxic tort and environmental law. Deposed of numerous complainants in a massive toxic tort litigation. Drafted deposition summaries and advised lead attorney as to possible problems associated with each of the deponents. Researched many environmental issues concerning a variety of areas of environmental law -- Resource Conservation and Recovery Act, Comprehensive Environmental Responsibility and Liability Act, Clean Air Act, and Clean Water Act. Advised clients primarily as to their responsibilities under RCRA.

June, 1992-Aug. 1992

Spilman, Thomas, Battle & Klostermeyer
Charleston, West Virginia
Summer Clerk

Drafted complaints, memoranda of law, interrogatories, response to interrogatories. Handled a case concerning a mechanic's lien. Drafted a response to the complaint, researched the issues, determined the experts in the field, retained expert witnesses, interviewed expert witnesses.

May, 1991-July 1991

Waste-Tron of Maryland, Inc.
Baltimore, Maryland
Environmental Consultant

Advised clients as to their responsibilities under the Resource Conservation and Recovery Act. Decided on appropriate sampling and

testing required to assess any problems. Depending on analytical data gathered, designed plans to treat the waste on-site or arranged for appropriate excavation, transportation and disposal of the waste.

Jan. 1989-Aug. 1990

Waste-Tron, Inc.
Charleston, West Virginia
Environmental Chemist

Involved in two main RCRA remediation projects, U.S. EPA clean-up of the Artel Chemical Superfund Site in Nitro, West Virginia, and the American Car Foundries Clean-up in Redhouse, West Virginia. I successfully solicited the American Car Foundries project and followed through with its timely and proper execution. The project, at $2,000,000.00 was WasteTron's single largest contract.

Jan. 1986-Dec 1988

Technical Testing Laboratories
Charleston, West Virginia
Analytical Technician

Sampled and analyzed water, waste-water, and hazardous waste as per State and U.S. EPA protocol.

REFERENCES:

Available upon request

(b) (4) [redacted]

Wheelersburg, Ohio
(740) 574-6144

EDUCATION:

Shawnee State University in Portsmouth, OH
Bachelor of Science, Natural Science, 1995

Hocking Technical College in Nelsonville, OH
Associate in Forestry 1975/1976

EXPERIENCE:

July 2001-Present

WasteTron Inc.
Wheelersburg, OH
Project Manager

Responsible for managing all of the various phases of a broad range of environmental projects. Typical responsibilities include: coordinating and supervising field activities; Environmental consulting and; writing technical reports. Some of the types of projects that I am responsible for include: Site assessments; sampling and analysis; Transportation and disposal of hazardous and non-hazardous wastes; UST removals and installations; Soil and groundwater remediation.

December 1999-July 2001

WasteTron Inc.
Jacksonville, Florida
Project Manager/Office Manager

Responsible for setting up and operating Florida branch office of WasteTron Inc. Responsible for managing all of the various phases of a broad range of environmental projects. Typical responsibilities include: working with clients and regulatory agencies; coordinating and supervising field activities; Environmental consulting and; writing technical reports. Some of the types of projects that I am responsible for include: Site assessments; sampling and analysis.

April 1995-December 1999

WasteTron, Inc.
Wheelersburg, OH
Project Manager

Responsible for managing all of the various phases of a broad range of environmental projects. Typical responsibilities include: working with clients and regulatory agencies; coordinating and supervising field activities; Environmental consulting and; writing technical reports. Some of the types of projects that I am responsible for include: Site assessments; sampling and analysis; Transportation and disposal of hazardous and non-hazardous wastes; UST removals and installations; Soil and groundwater remediation; Waste management Plans', ground- water Protection Plans, and various other consulting projects. I was instrumental in developing the "Comprehensive Waste Management Program" for WasteTron.

Sept. 1993-April 1994

Shawnee State University
Portsmouth, OH
Lab Assistant

Coordinated and maintained chemical laboratories which included setting up experiments, preparing chemical solutions, and maintaining laboratory equipment. I also assisted faculty with chemistry research projects.

REFERENCES:

Available upon request.

APPENDIX B QC Documentation

PFE ORIGINAL

Quality Control Certification

Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

This document is provided to certify that the Independent Quality Control Team (IQCT) have reviewed the Quality Control Plan. All comments resulting from the various reviews have been resolved and/or incorporated.

Assignment	Name	Signature	Date
Senior Review	(b) (4)	(b) (4)	9/24/01
Peer Review	(b) (4)		

PFE ORIGINAL

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Preparation of Remediation Work Plans and Construction of Cap
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Assignment	Name	Signature	Date
Senior Review	(b) (4)	_____	_____
Peer Review	(b) (4)	(b) (4)	9-24-01

PFE ORIGINAL

QUALITY CONTROL REVIEW CHECKLIST

Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

The following checklist is provided for QC review of the SSHP for this project.

1.	Introduction	✓
2.	Project Description	✓
3.	Hazard/Risk Analysis	✓
4.	Contractor Project Organization and Training	✓
5.	Safety Procedures/PPE Program	✓
6.	Site Control Measures	✓
7.	Decontamination Plan	✓
8.	Emergency Response and Contingency Plan	✓
9.	Record Keeping	✓
10.	References	✓

APPENDICES

APPENDIX A	Activity Hazard Analysis	✓
APPENDIX B	Training Certificates	✓
APPENDIX C	PPE Checklist, Misc. Forms	✓
APPENDIX D	Medical Data Sheet/Medical Monitoring	✓
APPENDIX E	Map	✓
APPENDIX F	WasteTron Inc. General Safety Policy	✓
APPENDIX G	Sub-Contractor's Safety Policy	✓
APPENDIX H	QA/QC Review	✓
APPENDIX I	Site Map	✓

PFE ORIGINAL

QUALITY CONTROL REVIEW CHECKLIST

Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

The following checklist is provided for QC review of the QCP for this project.

1.	Purpose	✓
2.	Scope of QA/QC Services	✓
3.	General Project Information	✓
4.	Internal Quality Control	✓
5.	Project Schedule	✓

APPENDICES

APPENDIX A	Resumes of the IQCT	✓
APPENDIX B	QC Documentation	✓

PFE ORIGINAL

Quality Control Review Checklist
Plan of Operations
Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

The following checklist is provided for QC review of the Plan of Operations for this project.

1.	Project Description	✓
2.	Overview of Remedy	✓
3.	Project Organization and Responsibilities	✓
4.	Field Activities	✓
5.	Equipment Decontamination	✓
6.	Field Documentation Procedures	✓
7.	Spill Prevention, Containment, and Countermeasures Plan	✓
8.	Protection of Rivers, Streams, and Impoundments	✓
9.	Air Emission Controls	✓
10.	Materials Handling	✓
11.	Project Schedule	✓
12.	References	✓

APPENDICES

Appendix A	Scope of Work	✓
Appendix B	MSDS for Chemicals Stored On-site	✓
Appendix C	Field Activity Forms	✓
Appendix D	Spill Control Checklist	✓
Appendix E	QC Documentation	✓
Appendix F	Site Map	✓
Appendix G	REIC QA Manual	✓

PFE ORIGINAL

Spill Prevention Checklist

Tank/Drum Inspection

1. *Check tanks or drums for leaks, especially looking for:*	*Acceptable*	*Not Acceptable*
A. Drip marks	____	____
B. Discoloration of tanks/drums	____	____
C. Puddles containing stored material	____	____
D. Corrosion	____	____
E. Cracks	____	____
F. Localized dead vegetation	____	____

2. *On tanks, check the piping for*		
A. Droplets of stored materials	____	____
B. Discoloration	____	____
C. Corrosion	____	____
D. Bowing of pipes	____	____
E. Evidence of stored material seepage on valves or seals	____	____
F. Localized dead vegetation	____	____

Secondary Containment Checklist

1. *Dike or berm system*		
A. Level of precipitation in dike/available capacity	____	____
B. Operational status of drainage valves	____	____
C. Dike or berm permeability	____	____
D. Debris	____	____
E. Erosion	____	____
F. Permeability of the earthen floor of diked area	____	____

2. *Secondary Containment*		
A. Cracks	____	____
B. Discoloration	____	____
C. Standing Liquids	____	____
D. Corrosion	____	____
E. Valve Conditions	____	____

3. *Sediment Ponds/Drainage Ditches*		
A. Erosion	____	____
B. Available Capacity	____	____
C. Debris	____	____
D. Stress Vegetation	____	____

Date: _____

Inspector Signature: _____

PFE ORIGINAL

Spill Cleanup Materials Checklist

Materials in Inventory	*Acceptable*	*Not Acceptable*
1. Absorbent pads, booms, or rolls (sufficient number to absorb a minimum of 200 gallons of spilled liquids)	_____	_____
2. Minimum of 10 over packs (85 gallon size)	_____	_____
3. 10 mil black plastic sheeting (minimum of enough to cover 2,500 square yards of area)	_____	_____
4. Reinforced tarps to cover all trucks used for hauling contaminated soil.	_____	_____
5. Two self-priming, air operated diaphragm pumps	_____	_____
6. A minimum of 300 feet of hose for pumps	_____	_____
7. Portable air compressors to operate the pumps	_____	_____
8. Three rakes (dedicated to spill clean up)	_____	_____
9. Three shovels (dedicated to spill clean up)	_____	_____

Date: _____

Inspector Signature: _____

PFE ORIGINAL

Spill and Emission Control Plan Training Checklist

Mark the items that were discussed.

1. Site and Project Description _____
2. Designated Person Responsible For Spill Prevention _____
3. Location and types of potential spills _____
4. Appropriate spill response procedures _____
5. Spill Containment Measures and inspections _____
6. Contingency plans _____
7. Methods of controlling dust and volatile organic emissions _____

Personnel attending the meeting:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Date: _____

Instructor Signature: _____

PFE ORIGINAL

Quality Control Field Oversight Checklist

The following checklist is provided for use in the field to assure that general QC procedures are followed. The Project Manager or his designee should complete and sign a checklist for the project site.

Project Site _____

Date: _____
Personnel on-site:

_____

_____

_____

_____

Signature: _____

		Yes	No	N/A
1.	Did the Supervisor or Project Manager Discuss the following items with the field Crew prior to beginning field activities?			
	Contents of Site-Specific Safety and Health Plan	____	____	____
	Contents of Quality Control Plan	____	____	____
	Contents of the Plan of Operations	____	____	____
	Field equipment to be used at project site	____	____	____
	Erosion Control Procedures	____	____	____
	Spill Control and Countermeasure Procedures	____	____	____
	Pollution Prevention Procedures	____	____	____
	Site Security and Site Access Restrictions	____	____	____

	Yes	No	N/A
2. Are materials delivered to the site checked for damage prior to their acceptance?	____	____	____
3. Is the bill of lading of all shipments checked to ensure that the materials ordered were the one delivered?	____	____	____
4. Were are material delivered checked to ensure that the delivered quantity was correct?	____	____	____
5. Were manufacturer certifications for delivered materials checked?	____	____	____
6. Were visual observations of the work performed by sub-contractors made by the Quality Control Inspector?	____	____	____
7. Did the Quality Control Inspector verify the quantities of materials used by the sub-contractors?	____	____	____
8. Was independent soil testing for compaction of the capped area performed?	____	____	____
9. Did the site supervisor ensure that all equipment, storage tanks, and office trailers were locked prior to leaving the site?	____	____	____
10. Was caution tape or fence erected around the hazardous area of the cap to prevent non authorized personnel from entering the area?	____	____	____

Comments on Quality Control Plan
Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

The following comments were provided by the WasteTron Independent Quality Control Team (IQCT). All comments resulting from this review have been resolved and/or incorporated.

General comment: Please refer to comments from the SSHP and make changes where applicable.

Response: Concur, changes made

General comment: There is a spacing problem with my copy of the plan. There are additional spaces toward the bottom of most of the pages. Please make sure this is not a problem with the original plan.

Response: spacing appears fine

1. Section 2.5; second paragraph: Consider rewording the beginning of sentences to eliminate the use of Mr. Cooper's name, and perhaps include this title in Section 3.4.5 and include Mr. Cooper's name there.

   Response: Concur, Mr. Cooper's name was removed from the beginning of several of the sentences in Section 2.5. Mr. Cooper is already noted at the Quality Control Inspector in section 3.4.5, F.

2. Section 2.7; fourth sentence: Again, consider eliminating Mr. Copper's name. Also, please change "...ensuring all..." to "...ensuring that all...".

   Response: Concur, change made

3. Section 3.4.2: Several sentences in the first paragraph begin with "The site...". Please consider rewording to start most of these sentences differently.

   Response: Concur, several changes were made

4. Section 3.4.3; fourth paragraph: fourth sentence: Please change "...from EPA's..." to "...from the US EPA's...".

   Response: Concur, change made

5. Section 4.0; last sentence: Please insert another space before this sentence.

   Response: Concur, change made

6. Spill Cleanup Materials Checklist; item 5: Please change "To" to "Two".

   Response: Concur, change made

7. Section 3.4.2, next to last sentence: Remove comma between Arbuckle and Creek in last sentence.

   Response: Concur, change made

8. Section 3.4.5, B: Mr. Steel's first name is Andy. Please correct

   Response: concur, change made

PFE ORIGINAL

Comments on Quality Control Plan

Preparation of Remediation Work Plans and Construction of Cap
Shaffer Equipment Company Site
Minden, West Virginia

Contract No. DACW69-00-D-0021
Work Order Number 0001

The following comments were provided by the Huntington District of the USCAE. All comments resulting from this review have been resolved and/or incorporated.

1. Pg 3, Section 2.2 Project Planning, Bullet 13 – Include USACE in the list of "all appropriate parties of concern".

Response: Concur, change made

2. Pg 4, Section 2.4 Document Control – It mentions that technical and admin files will be maintained in Poca, WV. There was supposed to be a trailer at the site. Wouldn't technical files be kept where the work is performed. I understand about admin files (i.e., billing) being kept at the head office, but everything else in relation to getting the job done may need to be at the trailer.

Response: Concur, the technical files will be kept at the trailer on-site and admin files will be kept at the Poca, WV office.

3. Pg 2.6 Project Management – This section mentions that the Project Manager will oversee the project and ensure that all details are followed. In past discussions with the Project Manager, he has mentioned that he would only be at the site around 20 – 25% of the time. I have concerns that given his schedule for other projects and the small amount of time he'll actually be there, that all details will be addressed. Maybe the on-site supervisor would better fit this role because he his actually responsible for the day-to-day operations. For example, USACE will have a full time oversite person at the site to keep up w/ the day-to-day activities while the USACE Project Manager will only be notified if problems arise.

Response: Concur, this change has been made. The on-site supervisor, [redacted] will keep up with the day-to-day activities while the USACE PM and the WasteTron PM will only be notified if problems arise.

4. Pg 5, Section 2.7 Site Security – This section mentions "Wastetron's Supervisor". Who is this? The on-site Supervisor? May need to reword.

Response: The WasteTron supervisor has been changed to the "On-site Supervisor".

5. Pg 5, Section 2.8 Field Quality Assurance – Section mentions [redacted] as the Quality Control Inspector. In past discussions with the Project Manager, I was told [redacted] was to be the On-Site Supervisor. Isn't there a conflict in having him act as both? If not, will he be able to fill out the forms as listed in Section 2.8 while watching field activities.

Response: Concur, [redacted] of WasteTron will serve as the Quality Control Officer and [redacted] will serve as the On-site Supervisor

6. Pg 5, Section 2.10 Corrective Action – This section mentions that "any deviations from approved plans shall be fully documented and that USACE will be notified of deviations from the approved plans". While all deviations must be documented, NO deviations from the approved plan can occur without USACE approval. That's why we have a full time oversite person at the site, in case these issues should arise. Please reword paragraph accordingly.

Response: Concur, WasteTron will seek the approval of the USACE oversite person if any deviations are to made. No deviations will be made without the approval of the USACE.

7. Pg 8, Section 3.4.4 Project Objectives – This section (and corresponding bullets) mentions mind drainage re-routing will be coordinated with the WVDEP AML and further mentions that future land use has not been determined. This is not so. The section needs to be reworded based on our "pit investigation" determinations and also our discussions with the landowner concerning future land use (i.e., let it go back to nature). Also, one of the bullets mentions installation of a drain pipe. Please verify that we are still installing a drain pipe. I believe USEPA chose installation of ditches rather than construction of drain pipes. Please revise section accordingly.

Response: Concur, this section will be changed to remove the references to the mine drainage re-routing and the use of drain pipe will be removed. The future land use will be changed to indicate that it "will be allowed to go back to nature."

8. Pg 9, Section 3.4.5 Project Organization

a. Please revise the Government Technical POC to show two persons. [redacted] as Project Manager and then please include [redacted] as Field Oversite Person and show his cell phone (304-634-6662).

Response: concur, change made

b. Since Wastetron's Project Manager will only be there around 25% of the time, please add [redacted] cell phone number in case he's out of the office.

Response: concur, change made

c. Since the On-Site Supervisor will not be in the POCA office for the duration of the project, could you please provide the cell phone number where he can be reached while on the site.

Response: Concur, change made

d. Sixteen Field Personnel are listed and then the section mentions that one or more of the following personnel will serve as an environmental technician for the project. It would seem that having these 16 different field personnel revolving throughout the construction activities could get a little confusing as to who's responsible for what and could result in miscommunication very easily. This list needs to be narrowed down to show the 4 or 5 persons that will be actually used on the site, not showing a revolving list as to who's available on a given day.

Response: Concur, changes have been made to clarify the issue. A short list of 5 to 6 people are given that are scheduled to perform work on the project and this will be noted as such. However, in the event of an injury, illness, or family emergency several persons will be listed as alternative personnel that may be sent to the site if the designated field personnel for the site can not be there.

9. Pg. 13, Section 5.0 Project Schedule – It would appear that we are already behind on this and with the fast approaching colder weather, it could mean that certain activities (i.e., liner placement and material compaction as well as seeding) may not be possible. This section needs to be revised to show how the contractor plans to achieve a completed project within the next 10 weeks based upon the fact that he has gotten such a late start with respect to contract award date.

Response: A schedule of field activities with dates will be included in the revised plans. It is expected that all of the work, with the exception of permanent seeding of the site, can be completed within the next 10 weeks. WasteTron will perform temporary seeding using winter wheat or rye this fall and will follow this up with permanent seeding during the spring seeding season. Plans will be changed to acknowledge this

1). Why is there no Sampling Analysis Plan?

Response: An SAP is not required by the SOW or its revisions. Also, no analytical requirements are outlined in the SOW or its revisions. However, sampling procedures will be added to the Plan of Operations.

Quality Control Plan

1). Section 2.8 QA, add (b) (4) will complete the field oversight checklist daily and will be added to the QC report.

Response: This will be changed to show that (b) (4) will be performing QC Oversight.

2). Section 2.9 Daily Quality control Reports,

- Need to include that the daily QC report will be give to the corps inspector daily.
- Add to the information on the QC report: Personnel on site by work cat and hours worked, Hours used equipment, what was accomplished that day in detail, any visitors to the site and any information that pertains to the job.
- Things attached to QC report: over site check list, daily safety meeting and personnel there, Materials testing information, certifications on materials, Equipment safety inspections if any, Sub contractors QC reports and Materials received (How much, type and what will they be used for) fuel, soil etc.

Response: concur, all of these changes will be added

3). Section 3.4.4 Project Objectives

- Mine drainage re-routing, what is the standard operating procedure here. Also why has the coordination not been done before know.

Response: This comment will be removed, mine drainage re-routing will not occur

- Riprap placed alone Arbuckle Creek. Where is the shown on the drawings?

Response: This comment will be removed. Rip rap will not be placed along Arbuckle Creek.

- Existing berms that may be upgraded, where are they located in the site plan.

Response: The existing berms will be done away when the sheet piling is installed. Cross sections of the berms ar shown on pages 5, 6, and 7 of the Final Work Plan.

- Four wells designated by US EPA to be left, have these been sampled before and were they ok then or was there problems and what do you mean by working order.

Response: The wells were checked by Triad Engineering on Sept. 26, 2001. The wells are filled with silt and will require abandonment. New wells will be installed. This section will be rewritten to add this information. Working order will be defined. It is intended to mean that groundwater samples can be collected from the wells for monitoring purposes.

- Where is the cut stone stockpile located on the site plan?

Response: The cut stone is located downstream of the eastern section of the cap. Refer to Sheet 2 of 1 of the final work plan, centerline of rip rap ditch Station 4 + 80 through 5 + 50.

- Phase I on barrow area, has this area been sampled and approved by COE.

Response: WasteTron is in the process of obtaining the ROE for the site and having the Phase I assessment performed or in lieu of a Phase I, a Phase II (sampling) may be performed with prior approval. From USACE POC.